

The Milltronics C-40 Solids Flowmeter is a low- to medium-capacity flowmeter designed to NFPA Code 8503 requirements for pulverized coal and coke. It is designed specifically for applications where the possibility of material combustion or explosion exists. The C-40 uses a specially modified hazardous rated ILE-37 sensing head with an NFPA Code 8503 rated flowguide assembly. The sensing head is mounted within the high pressure rated assembly, which will contain pressure up to 50 psi generated by an internal explosion. During normal operation, the internal pressure must be less than 1 psig, but the device can handle surges up to 10 psig without damaging the sensing head's inner gasket.

Because of the unique design of the C-40, pulverized coal can be accurately monitored in normal running conditions. If an upset condition occurs, the design of the C-40 protects the process, requiring only limited repair and maintenance.

A sensing plate and a solids flowmeter integrator are required to complete the system.

Technical Specifications

Flow Rate

Inlet Size	Capacity Range
10" (250 mm)	5 to 40 t/h (5.5 to 44 STPH)
6" (150 mm)	5 to 10 t/h (5.5 to 11 STPH)

Particle Size

- fine powder up to 12 mm (0.5") maximum

Operating Pressure

- less than 1 psig (with limited airflow)
- minor upsets: 10 psig

Pressure Rating (upset conditions)

- 50 psig

Accuracy

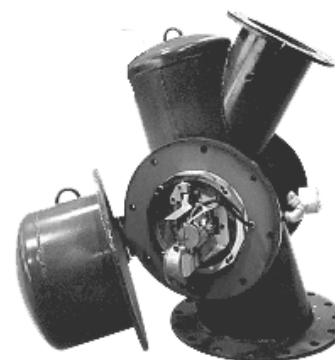
- $\pm 1\%$ of full scale

Repeatability

- $\pm 0.2\%$

Ambient Temperature Rating

- -40 to 65° C (-40 to 150°F)



Product Features

- High pressure rated assembly successfully contains pressure in case of material combustion or explosion
- NFPA Code 8503 rated flowguide assembly
- Sensing head gasketing handles minor pressure buildup
- Process temperatures to 65°C (150°F)

Operating Range

- 0 to 0.5 t/h (0.6 STPH) min.
- 0 to 40 t/h (44 STPH) max. (to suit application)

Construction

- painted mild steel flowguide and housing
- sensing plate (to suit application)
- ILE-37 sensing head with PTFE gasket

Gasket Material

- silicone rubber and PTFE

Sensing Plate Construction

- 304 SS

Approvals

- NFPA code 8503
- ILE 37: CSA Class I, Groups C and D; Class II, Groups E, F and G
- CE

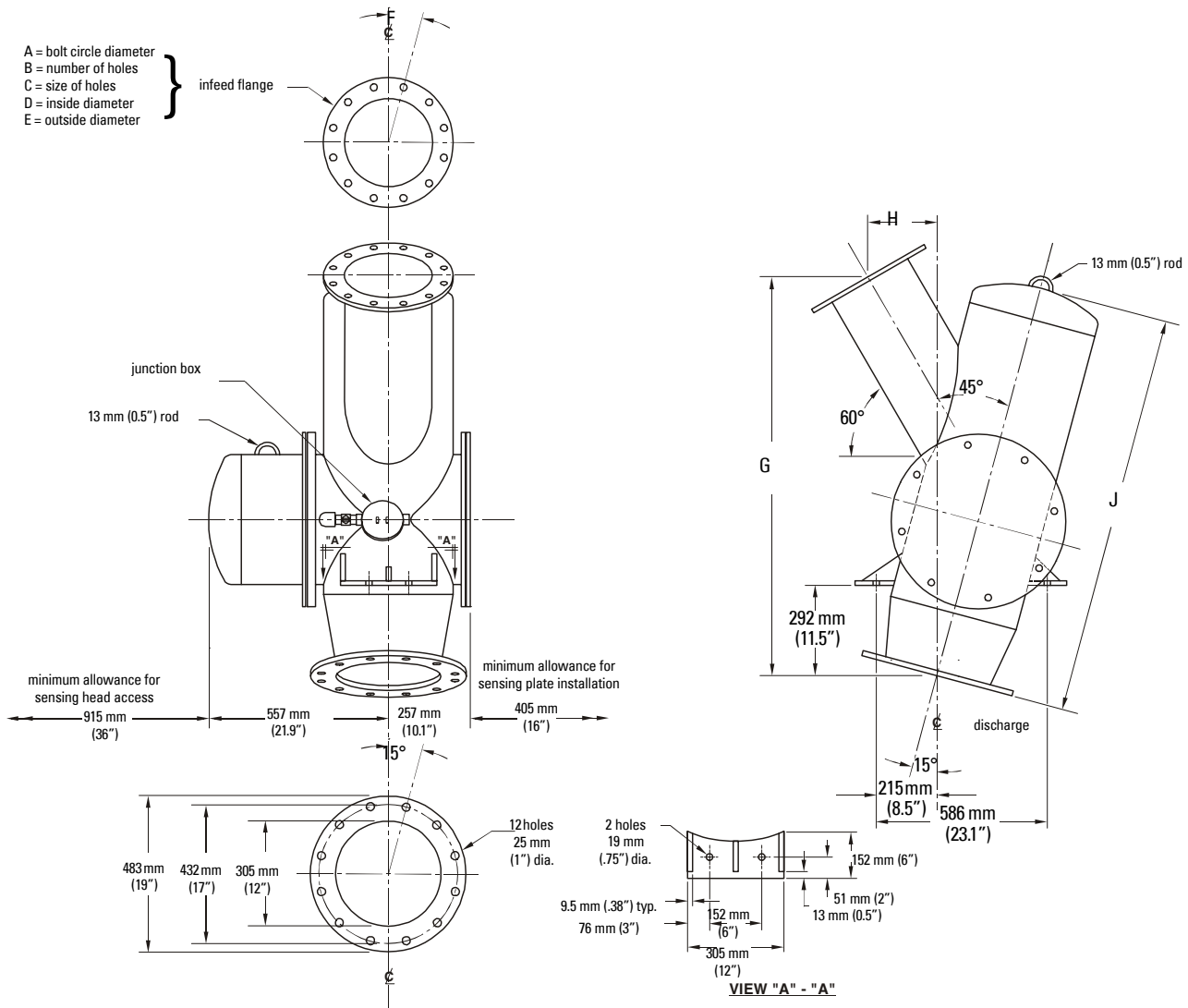
Options

- alumina ceramic abrasion resistant liner for sensing plate

Milltronics C-40

Dimensions

C-40 Dimensions										
Size	Max. Flowrate at bulk density	A	B (number of holes)	C	D	E	F	G	H	J
254 mm (10")	40 t/h at 0.4 t/m ³ (25 pcf)	362 mm (14.25")	12	25 mm (1")	255 mm (10.02")	406 mm (16")	15°	1250 mm (49.21")	225 mm (8.86")	1257 mm (49.50")
150 mm (6")	10 t/h at 0.4 t/m ³ (25 pcf)	241 mm (9.5")	8	22 mm (0.875")	154 mm (6.07")	279 mm (11")	22.5°	1250 mm (49.21")	225 mm (8.86")	1257 mm (49.50")



Installation Notes

1. Built to withstand 50 psi internal pressure (NFPA code 8503).
2. Ensure sufficient mechanical support is provided for the flowmeter and chutework for all operating conditions.
3. The discharge centreline must be plumb. Shim if necessary.

SOLIDS FLOWMETERS